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BRAZILIAN JUDICIARY TECHNOLOGICAL TRANSFORMATION

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Abstract: The article aims to analyze the impact of the Brazilian National Council of Justice (CNJ) resolutions into the digital transformation of the judiciary, providing reflections on the need for this in light of the rapid changes in social and economic dynamics that have taken place in recent decades, including technological disruptions. For that, a brief contextualization of the Brazilian Judiciary will be carried out, followed by the presentation of the resolutions published by the CNJ and its repercussion in the construction of the so-called Judiciary 4.0, in an adaptation of the millenary institution to contemporary society and new times, marked by the concepts of online Courts and Digital Justice.

Keywords: judicial power, public policy, digital revolution.

Brazil is one of the global leaders in the “lawsuits filed per year” ranking. There are 75 million pending lawsuits, with 25.8 million new lawsuits filed in 2020. Brazilian courts hold one of the world’s heaviest workloads with 6.321 cases per judge.

The Image Study of the judiciary (Lavareda, Montenegro,

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Xavier, 2019), conducted by the National Association of Judges, highlights that, in 48 (forty-eight) countries, the average is 21 (twenty-one) magistrates per one hundred thousand inhabitants, with Brazil occupying the 38th (thirty-eighth) place in the ranking with only 8,58 (eight-point fifty-eight) magistrates per hundred thousand inhabitants. In another round, however, it is the 4th (fourth) country with the highest number of cases per judge.

Just as an example, there are 43 (forty-three) judges for one hundred thousand inhabitants in Croatia, 27 (twenty-seven) in Austria, 26 (twenty-six) in Greece, 24 (twenty-four) in Germany, 19 (nineteen) in Portugal, 15 (fifteen) in Switzerland, 14 (fourteen) in the Netherlands, 12 (twelve) in Spain, 11 (eleven) in Italy and 10 (ten) in France, all of them with a higher number than Brazil⁴. As if that was not enough, some of these countries rely on the administrative litigation system, in which decisions are made by non-judicial authorities, in addition to several jurisdictions having non-professional judges performing part of the judgments, which shows the teratological discrepancy in the proportion of cases by judges.

⁴Report European Judicial Systems: Efficiency and Quality of Justice de 2018., available at: <https://rm.coe.int/rapport-avec-couv-18-09-2018-en/16808def9c>.

The Justice Luis Felipe Salomão of the Superior Court of Justice, in an article written jointly with two other judges, had alerted a few months ago: “If the current litigious culture prevails, there is a fear about the collapse of the Brazilian judicial system, which already works close to the limit of its operational capacity”.

It is not surprising, therefore, that the research “Who we are - The magistracy we want” (Vianna, Carvalho, Burgos, 2018), also conducted by the National Association of Judges, revealed that 95,5% of first instance judges, 93,9% of Court of Appeal justices, 93,7% of retired magistrates and 100% of higher courts justices consider, among the current difficulties of the judiciary, that the overload of cases constitutes the essential or relevant obstacle to the greater efficiency of judicial activity.

Technological innovations are revolutionizing our lives as never before, and especially the way the judiciary operates. Innumerable were the novelties of the last decades. Those who were born less than 20 years ago sometimes cannot even conceive the transformations that our day-to-day has undergone, whether in the way we communicate (from letters, pagers, and landlines to the smartphone and instant messaging applications), we inform ourselves (does the reader still read the printed newspaper or access a news portal?), we consume (delivery and e-commerce) and even in the way we are entertained (from the

video stores and music CDs to Netflix and Spotify)⁵.

Without any doubt, we are, at the same time, spectators and protagonists of one of the greatest revolutions in the history of mankind: the burial of the analogical era and the emergence of the digital one. “We are passengers of an unprecedented historical change” (Schwab, 2017).

This phenomenon is also starting to spread to the public sector. Indeed, citizens have expectations for digital public services that make their lives easier - just as it happens in the private sphere through a range of applications, available in the palm of our hands and accessible with a few taps.

Reinforcing this bias, it is possible to mention the recent Brazilian Law n°. 14.129/2021⁶, which establishes the Digital Government and the increase of public efficiency, especially through the reduction of bureaucracy, innovation increase and digital transformation. It sets, as some of its principles, the modernization, strengthening and simplification of the public power relationship with society. Such measures will take place by means of digital services, accessible even through mobile devices that will allow legal entities and other public entities to demand and access public services digitally, without the need for a face-to-face request.

⁵See: <https://www.mirror.co.uk/tech/netflix-uber-spotify-disruptor-businesses-7354782>

⁶See: http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2021/lei/L14129.htm

In this context, the new social dynamic requires a new conceptualization of what Justice is and regarding how the State will make available one of its main services, namely, the jurisdiction. The emergence, as well as the need for a solution, of individual and collective conflicts, happens nowadays at a speed and rate completely different from those that prevailed when the traditional precepts of justice and the judicial decision-making process were established (Holmes, Sunstein, 1999). Therefore, it is imperative to recognize that Digital Transformation is a necessity for the improvement of the jurisdiction.

The years of 2020 and 2021 will certainly be remembered for the pandemic that plagued the world, but it will also mark a milestone in this process. The Brazilian Supreme Court Justice Luiz Fux, when became Chief Justice of Brazil and President of the National Council of Justice (CNJ)⁷, had already pointed out that one of the goals of his administration would be the development of Justice 4.0 and the promotion of access to digital justice⁸, aiming to increase governance, transparency and efficiency of the judiciary, and, thus, providing effective approximation with the citizen and reduction of expenses.

⁷See: <https://agenciabrasil.ebc.com.br/en/justica/noticia/2020-06/brazil-top-court-has-new-chief-justice-luiz-fux>

⁸JUDICIÁRIO eficiente, inovador e transparente: Fux apresenta eixos da gestão no CNJ. CNJ, Brasília, 22 set. 2020. Available at: <https://www.cnj.jus.br/judiciario-eficiente-inovador-e-transparente-fux-apresenta-eixos-da-gestao-no-cnj/>. Last access in: 18 jan. 2022.

It should be noted that, even before the pandemic, the need to modernize the judiciary was already a certainty for the magistrates who were heard in the survey “Who we are-The Judiciary we want” promoted by the Brazilian Association of Judges (AMB). The ideas of electronic judicial cases, virtual trials and the use of social networks for procedural communication were endorsed, as well as the application of artificial intelligence for reporting and identification of repetitive cases (Vianna, Carvalho, Burgos, 2018). By the way, the “Study of the Image of the Judiciary”, which included qualitative research with the population and opinion makers, had also already shown the expectation that modernization and technological innovation would contribute to the functioning of the judiciary, improving access, promoting agility and simplification of services (76% believe that the use of technology greatly facilitates or facilitates access to justice) (Lavareda, Montenegro, Xavier, 2019).

In this sense, CNJ Resolutions number 313/2020⁹, 314/2020¹⁰ and 329/2020¹¹, published due to the public health crisis, recognized that the jurisdictional activity is essential and must be provided uninterruptedly. Therefore, the said resolutions have sought to ensure minimum conditions for the jurisdictional

9See: <https://atos.cnj.jus.br/atos/detalhar/3249>

10See: <https://atos.cnj.jus.br/atos/detalhar/3283>

11See: <https://atos.cnj.jus.br/atos/detalhar/3400>

activity continuity during the pandemic, while preserving the health of magistrates, public officials, lawyers, and citizens in general.

First, CNJ had encouraged the remote work of magistrates, civil servants, and collaborators, seeking solutions in a collaborative way with other institutions of the justice system to carry out all procedural acts, including providing to all courts a platform for performing virtual acts through videoconference, under the terms of CNJ Act n^o. 61¹², of 03/31/2020.

At this stage, it is imperative to point out that acts by videoconference have broad legal support. Brazilian Civil Procedure Code has numerous articles that authorize the practice of procedural acts through videoconference or another technological resource for transmitting sounds and images in real-time, being one of the rare examples in which legislation has advanced faster than everyday practice. In this sense, the following articles of the Civil Procedure Code should be highlighted: art. 236, §3; art. 385, §3; art. 453, §1^o; art. 461, §2; art. 937, §4; as well as the provisions set out on art. 185, §2; art. 217 and 222, §3^o, these from the Criminal Procedure Code.

And the results of remote work and virtual hearings over the year of 2020 were impressive, with a total over 691.1 million procedural movements, including 15,5 million final sentences,

¹²See: <https://atos.cnj.jus.br/atos/detalhar/3266>

23,9 million interim decisions, and 41,3 million judicial determinations, which reveals that productivity has increased when compared to previous years¹³.

The Brazilian Law number 13.994/20¹⁴ of April 24, 2020 amended Law number. 9.099/95 and established the possibility of a virtual conciliation hearing:

Art. 2: articles 22 and 23 of Law number. 9.099, of September 26, 1995, come into force with the following changes:

“Art. 22. (...) § 2 The virtual conciliation conducted by using the available technological resources for transmitting sounds and images in real time is applicable, and the result of the conciliation attempt must be reduced to writing with the relevant annexes”, (NR)

"Art. 23. If the defendant does not appear or refuses to participate in the attempt of virtual conciliation, the Judge will pass judgment. (NR)

The course of year 2020 showed that the technological revolution allowed not only the maintenance of the judicial activity, but even its radical improvement, by enabling Justice to be more effective, with decisions occurring in a reasonable time and be less costly. Therefore, a significant gain in terms of efficiency was revealed.

We live in the cyber age. We witness the birth of a new era and the profound transformation of society. We have shortened distances and significantly expanded human knowledge in all fields of knowledge. There is no longer any doubt about the

¹³https://paineis.cnj.jus.br/QvAJAXZfc/opendoc.htm?document=qvw_1%2FPainelCNJ.qvw&host=QV%40neodimio03&anonymous=true&sheet=shPDPrincipal

¹⁴See: http://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2020/Lei/L13994.htm

potential that the use of technology can also provide for forensic work.

Thus, in October 2020, the National Council of Justice approved CNJ Resolution 345/2020¹⁵, which created the “100% Digital Proceeding”, in which all procedural acts will be performed exclusively by electronic and remote means through the worldwide network of computers. Other revolutionary normative acts would follow, as we will see, under what was named as the “Justice 4.0 Program”¹⁶, a public policy, established by the CNJ, that aims to transform the present and shape the future of Brazilian Judiciary.

The paradigmatic creation of the “100% Digital Proceeding” represents a necessary change of reference, effectively conceiving Justice as a service (“justice as a service”) and no longer relating it to a physical building. Thus, through the promotion of Digital Justice, it is possible to reach a countless number of people who unfortunately could not enforce their rights for a myriad of reasons.

As Richard Susskind points out in acclaimed book “Online Courts and the future of Justice”:

“More people in the world now have access to the internet than access to justice. According to the Organization for Economic Cooperation and Development (OECD), only 46 per cent of human beings live under the

¹⁵See <https://atos.cnj.jus.br/atos/detalhar/3512>

¹⁶Available at: <https://www.cnj.jus.br/tecnologia-da-informacao-e-comunicacao/justica-4-0/>, last access in 24 April 2022.

protection of law, whereas more than 50 per cent of people are now active users of the internet in one war or another. Annually, one billion people are said to need “basic justice care”, but in many countries, close to 30 per cent of problem-owners do not even take action” (Susskind, 2019)¹⁷.

While technologies are evolving exponentially, organizations are changing logarithmically, which leads to a gap, a growing mismatch. The time has come for us to embrace technology in the courts as well, allowing judicial provision to take place effectively and within a reasonable time.

The advent of the electronic process had already brought significant changes in courts management. In fact, there was a real revolution in the way of handling the cases, with a review of traditional routines and practices that greatly impacted the way judges, prosecutors, lawyers, defenders and civil servants worked them.

The contemporary pandemic challenge experienced by the judiciary around the world has strengthened, even more, the idea of a justice that is not tied to a physical building, helping to overcome a culture still rooted that considers the Court as the epicenter of jurisdictional activities.

The “100% Digital Proceeding” expresses a new working model and uses all the potential that technology can provide to the

¹⁷According to the author: “More people in the world now have access to the internet than access to justice. According to the Organization for Economic Cooperation and Development (OECD), only 46 per cent of human beings live under the protection of law, whereas more than 50 per cent of people are now active users of the internet in one war or another. Annually, one billion people are said to need “basic justice care”, but in many countries, close to 30 per cent of problem-owners do not even take action (...)”.

judiciary, with a significant reduction in cost and time, as well as a significant increase in efficiency, culminating in maximizing effective access to justice.

In this sense, the hearings and trials in the “100% Digital Proceeding” will take place exclusively by videoconference, as well as all services will also be provided remotely, during office hours, by phone, by email, by video calls, by applications digital or other means of communication that may be defined by the court.

At this point, it should be noted that the CNJ also instituted the “Digital Desk”, by the CNJ Resolution 372/2021, enabling citizens and legal practitioners to clarify any doubts with court officials through the use of a videoconferencing tool, similar to the face-to-face service (which occurred at the so-called “desk” physical services in the courthouses), during business hours.

All this to demonstrate that we are entering a new era and inaugurating a new concept of justice: Digital Justice, towards Judiciary 4.0.

Of course, this does not mean that the transition will be immediate or that all procedural actors will do so at the same time. The change in culture and paradigm must occur gradually, and, for no other reason, the “100% Digital Proceeding” is optional and the defendant can oppose it, as well as retract. Any refusal, however, does not forbid the magistrate of proposing to

the parties the execution of isolated procedural acts in a digital way. The natural evolution may be the adoption of the “opt out” model, as a true nudge (Sunstein, Thaler, 2008) for the parties, so that the rule will be the cases being processed in the terms of the “100% Digital Proceeding”, but with the possibility of refusal by the parties and option by the traditional rite.

The parties might also request the judge to participate in the hearing or trial by videoconference in a room provided by the Court. CNJ Resolution 341/2020 determined the Brazilian courts to provide available rooms for depositions in hearings or in trials by videoconference system. It is a possibility to those who eventually have difficulties accessing the internet via a cell phone or computer, without requiring them to go to the Court where the act will effectively take place.

In fact, the CNJ, aware of the situation of digital vulnerability, that is, of parties who do not have access to the internet and/or who do not have the ability or knowledge to use it in an adequate way, edited CNJ Recommendation 101/2021, advising Brazilian courts to provide, in their physical buildings, at least one public servant working in person during regimental working hours, even if cumulating functions, to serve the digitally excluded, in order to guarantee wide access to justice, digitally forward any requests made and assist the persons in whatever way may be necessary.

Until the beginning of 2020, what we considered normal was that plaintiff and defendant, as well as lawyers, prosecutors and defenders, in addition to witnesses, had to go to a Court to carry out a procedural act. Sometimes, the justice building is located in a different city from the one where these people live worsening the situation. After the act, everyone would have to return to their homes, probably not without wasting a few more hours in traffic.

This narrative, by itself, would already show the high costs imposed on all participants. Not only financial costs, resulting from travel, food and loss of a day's work, but also social costs, such as the stress involved. And we are only talking about the essential characters, worth mentioning that there is almost always an audience in a hearing or trial, such as the families of those involved and law students.

In the virtual audience, all interested persons receive a link, either by email or even WhatsApp, simply accessing the virtual meeting 5 (five) minutes before the scheduled time through a cell phone or computer. There is no need for any expense with transport and there is only the sacrifice of the time necessary for the effective realization of the hearing or trial. This advantage alone would demonstrate the enormous benefit brought by virtual audiences.

From the lawyers' point of view, the complex dynamics

prevailing in the past meant that they had to be limited, as a rule, to a certain territorial area. Wealthy clients might be able to pay for a lawyer to travel to another city or state to file a case or attend a hearing, but certainly most citizens cannot afford these expenses. Furthermore, even in cases that are being processed in the region of residence of the parties or in neighboring regions, the requirement of physical presence makes it extremely difficult, for example, for a lawyer to participate in two hearings or trial on the same day, causing him to have to choose one case over another, replace another attorney, or seek an adjournment. The “100% Digital Proceedings”, as well as the virtual hearings themselves, free lawyers from these geographical constraints, allowing them to be hired by clients from distant cities and even from other states, without this implying an increase in costs (Coase, 1960).

The scenario outlined as typical of the physical courts installed in forums and in-person audiences can be impressive and sound old-fashioned or backward, but this is due to the ancient format of our procedure and this was the normality we knew and to which we were used to, yet complex and costly as it was.

The fact is that we are experiencing a new reality, and the so-called “new normal” also brought the possibility to improve the jurisdictional service, culminating in the construction of a justice more adapted to our time.

Traditionally, when a witness who resides in a different district was enrolled in a judicial proceeding, it was necessary to issue a letter of request to the Court of his residence, which, in turn, upon receiving the letter, designated a date for the hearing, determining steps so that all those involved were summoned for the aforementioned act.

Nowadays, the proceedings can now be fully remote. CNJ Resolution number 354/2020¹⁸ made possible the digital fulfillment of procedural and judicial orders, revolutionizing the way of complying with judicial acts and practically extinguishing the old domestic letters rogatory. In this sense, art. 4 of the aforementioned Resolution establishes that, as a rule, the hearing of victims, witnesses and experts that resides in other will occur by videoconference.

In fact, the biggest pandemic faced by humanity since 1918, by making remote work necessary as a way of enabling social distancing, forced the judiciary and other legal institutions to redesign numerous procedural dynamics sedimented in the legal universe, but which were already outdated due to the technological advancement of today's society. We will thus have a positive legacy of this tragic period, with the recognition of the possibility of direct and immediate hearings and trials through

¹⁸See <https://atos.cnj.jus.br/atos/detalhar/3579>

videoconferencing. The measure, in addition to being more economical for all those involved, relieves other judges of conduct these hearings and speeds up the processes at the original Court.

Finally, as the culmination of this digital transformation, the publication of CNJ Resolution number 385/2021¹⁹, unanimously approved at the plenary session held on April 6th of this year, authorizing the revolutionary institution of “Justice 4.0 Division”, a Brazilian remote court.

As Steven Pinker pointed out, “the digital revolution, by replacing atoms with bits, is dematerializing the world right before our eyes” (Pinker, 2019). To paraphrase the Canadian author, we are dematerializing the Justice building and creating the “virtual court”. The “100% Digital proceeding”, along with the “Justice 4.0 Division”, express a new model of work and use all the potential that technology can provide, materializing the true digital transformation in the sphere of the judiciary.

The electronic process makes it possible to concentrate the workforce in a single location or even its spatial dispersion, and still streamline the processing of cases and rationalize the workforce, including through automation.

The “Justice 4.0 Divisions” have the power to redesign, reorganize and restructure the Brazilian Judiciary, providing, in

¹⁹See <https://atos.cnj.jus.br/atos/detalhar/3843>

a not too distant future, the fatal resizing of the territorial concepts, so that the magistrate's territorial competence does not need to be restricted to a single Municipality or microregion. The regulations made a 100% digital court possible, speeding up the judgment of the cases and at the same time minimizing the impact of the lack of officials.

Therefore, the “Justice 4.0 Divisions” will be marked in the history of the Brazilian Judiciary, since they configure the bridge that will take us to the new justice (Justice 4.0), being our first remote courts. When we speak of a new justice, it is because it is taken into account that today’s Justice can no longer be identified as the justice of yesterday, under the light of a new society, with unprecedented demands and needs. The new Justice is the one that is in harmony with the new social reality and in line with contemporary dynamics, prepared to respond, with efficiency, speed, and creativity, to the expectations of postmodern society, anchored in technology.

The CNJ Resolution number 385/2021 allowed the National Council of Justice to authorize the courts to create “Justice 4.0 Divisions” specialized on a subject and with jurisdiction over the entire territorial area located within the limits of the Court of Appeal's jurisdiction. Each division must have at least three judges, in which they will only process and rule cases by the “100% Digital Procedure”, regulated in CNJ Resolution

345/2020.

In this sense, the courts will be able to assist those who seek justice in search of a solution to specific disputes, and parties, lawyers, and eventual witnesses will not be forced to travel to a forum to attend a hearing, for example. In the words of Chief Justice Luiz Fux, “it is the creation of a virtual environment of effective judicial protection”, in which videoconferences and other acts carried out with the help of technology dispense physical presence, thus configuring “an instrument in which citizens can immediately have their access to justice as promised by the Federal Constitution”.

Undoubtedly, the “Justice 4.0 Divisions” make possible not only more effective judicial provisions, by providing the means to high-level specialization for certain types of demands (including allowing the improvement of magistrates in this regard, as opposed to the traditional single and unspecialized inland courts), but also that it takes place in a reasonable time. Each division will be able to count on several judges and, thus, to attend even to eventual episodic outbursts of litigation due to specific events (evoking the idea of “joint efforts”).

Therefore, due to the dynamism that contemporary society demands from its institutions, it was given greater mobility to the Brazilian Judiciary, providing the possibility of a rapid structural resizing.

It should be noted, however, that opting for a “Justice 4.0 Division” is a plaintiff’s choice and should be exercised at the time of the distribution of the lawsuit. Nonetheless, once the choice is made, it is irreversible. On the other hand, the defendant may oppose to the processing of the case in one of the “Justice 4.0 Division” up to the filing of the first statement made by the counsel or public defender, in which case it will be sent to the competent physical court indicated by the plaintiff, submitting it to a new distribution. The defendant's non-opposition, however, will be seen as a procedural convention amongst the parties, under the provision of article 190 of the Brazilian Code of Civil Procedure. This will, therefore, confirm the establishment of the “Justice 4.0 Division” jurisdiction.

The designation of judges for the “4.0 Justice Divisions” must attend a series of requirements, obeying the criteria of seniority and merit, as well as being for a fixed term, observing the minimum limit of 1 (one) year and the maximum limit of 2 (two) years. Reappointments are allowed.

Finally, the fall of the current physical paradigm of the courts is enshrined in the paragraph of article 5 and in article 7, which allows the transformation of physical courts into virtual ones. It enables the dematerialization of buildings and the realization of justice as a service: accessible to everyone anywhere and anytime.

The National Council of Justice (CNJ), under the leadership of Chief Justice Luiz Fux, is coordinating and orchestrating this technological transmutation, with the creation of a true digital justice microsystem, including also the creation of the Digital Platform of the Brazilian Judiciary - PDPJ -Br.

The Digital Platform of the Brazilian Judiciary (PDPJ-Br) was founded through CNJ Resolution number 335/2020²⁰, being responsible for the introduction of a new public policy for the Electronic Judicial process as well as creating the judiciary marketplace (CNJstore).

In Brazil, Courts are split into the Legal Justice System, comprising Federal and State Courts, and the Special Justice System, consisting of the Labor Justice System, the Electoral Justice System, and the Union Military Justice System. There are 4 Superior Courts, 27 State Courts, 27 Regional Electoral Courts, 24 Regional Labor Courts, 6 Federal Regional Courts and 3 Regional Military Courts, which makes a combined total of 91 courts, besides Councils and the Supreme Federal Court.

In this sense, we had numerous electronic judicial processing systems (55 are still active), with limited interoperability, communication, and integration, as well as multiple logins and restricted integration between databases.

²⁰ See <https://atos.cnj.jus.br/atos/detalhar/3496>

The use of different case processing systems or different versions (customizations) of the same system restricted the ability of one court to benefit from technological innovations developed by another court. We also had a lack of knowledge and technology sharing, which was often outsourced from private vendors.

The PDPJ-Br aims to integrate and consolidate all electronic systems of the Brazilian Judiciary in a unified environment, implementing the concept of community development, in which all courts contribute the best technological solutions for common use. Indeed, it embodies the establishment of a single platform for publishing and making available applications, microservices and artificial intelligence (AI) models, through cloud computing.

PDPJ provides structure-based solutions such as unified and integrated access to gov.br (the platform for citizen's relationship with the federal government), notification services, and intelligent searches for information on cases.

The modules are available as APIs (Application Programming Interfaces), and they are built through collaboration. Every new functionality that a court develops can be used by the developer and by all other courts. This will lead to cost savings and rationality, pooling both human and material resources for the benefit of the entire justice system

It is important to highlight that, after the creation of the PDPJ-Br, the contracting of any new system, module or private functionality is prohibited, even if in a non-onerous way, if it causes technological dependence on the respective supplier or that does not allow the non-onerous sharing of the solution at PDPJ-Br.

The emblematic initiative of the National Council of Justice seeks to guarantee the operational efficiency of the judiciary and fiscal, budgetary, financial and environmental responsibility, giving rise to excellence in the management of operational costs, with the economy of resources through rationalization in the acquisition and use of systems, goods and services, in addition to the best allocation of human resources necessary for judicial provision, mainly in the area of information and communications technology (ICT).

In this sense, the PDPJ-Br will work as a model of convergence, being provided by a repository (marketplace) of solutions that will be available for use by all courts.

In just over a decade, non-electronic processes have become the exception. The percentage of electronic processes rose significantly between 2009 and 2020, and now they constitute the bulk of all cases. By the year 2020, virtually all cases were filed electronically (96.9%).

In tandem with electronic process growth, the Brazilian

Judiciary has also determined the end of hardcopy files. As of March 2022, Brazilian courts shall admit only electronic cases. December 2025 is the deadline for all courts to have digitized their files.

On 28 January 2020, through the technical cooperation agreement between the National Council of Justice (CNJ) and the Court of Justice of Roraima (TJRR)²¹, Brazilian Judiciary had the pioneering inclusion of the Mandamus module in the PDPJ-Br, making it available to all other courts, implementing a community concept, in which all courts can contribute with the best technological solutions for common use, and better management of digital jurisdiction.

Corroborating this sentiment, it is worth mentioning the words of the Mozarildo Cavalcanti, Chief Judge of the TJRR, during the ceremony that formalized the technical cooperation agreement:

“Mandamus has all the potential to become a useful tool for all courts. And, in the same way that the TJRR makes its contribution today, it will also benefit from contributions from the other courts, under the command of the CNJ”²².

Mandamus consists in a solution developed by TJRR, with technical and scientific support from the University of Brasília (UnB), that uses Artificial Intelligence (AI) to automate the proceeding for complying with court orders, maximizing the

²¹Available at: <https://www.youtube.com/watch?v=CSshQOa94kn0&feature=youtu.be>, last access in 12 out. 2021.

²²Available at: <https://www.cnj.jus.br/solucao-de-inteligencia-artificial-de-roraima-integra-plataforma-digital-da-justica/>, last access in 12 out. 2021.

efficiency of the judiciary and not only reducing financial costs, but also increasing the quality of working life of civil servants and justice officials.

An AI solution involves a set of technologies-artificial neural networks, algorithms, learning systems, large data volumes (Big Data), and so forth-which provides inputs and techniques that can emulate human cognitive abilities, such as reasoning, awareness of environment, and decision-making.

Machine learning solutions help uncover patterns and improve decision-making. By automating work routines and embedding intelligent functionalities into judicial proceedings, they allow the court clerks and magistrates to save time and devote their efforts to complex activities that require more in-depth analysis.

The judiciary AI models are available on the Sinapses platform, which congregates Brazilian courts' initiatives to share and leverage solutions. According to the AI Projects Dashboard, launched by CNJ in December 2021, there are 41 artificial intelligence projects spread across 32 courts in Brazil. They range from 11 tools that provide information and assist jurisdictions, such as chatbots and virtual assistants, to solutions that help lawyers and improve management and in-house administration, with dedicated tools for magistrates and court operators.

The Codex platform is also part of the AI ecosystem. It was

created in 2022 to be the official framework for collecting and storing all data from electronic lawsuits in Brazil. Not only does Codex contribute to the input and provisioning of the National Database of the Judiciary (DataJud), but it also fosters the creation and development of AI models. Having more effective and efficient data and information management is essential to sustain evidence-based legal policymaking, drafting, and implementation.

Codex's extractor and converter modules and character recognition tools ensure that the data held within a lawsuit-encompassing metadata, court proceedings, and documents converted into plain text format—are ready to be used by data science tools and AI models.

Developing AI models involves creating a dataset of examples, and often tagging and classifying that dataset to refine its accuracy. Through the usual channels, this requires a great deal of effort from the development team to compile, select, process, purge, and standardize data, besides recognizing characters from text-based data in images and PDFs. The integration between Synapses and Codex will optimize these procedures. Three AI models with an accuracy above 85% have already been developed through this integration, as part of the Justice 4.0 Program.

“It is not the strongest that survives, nor the most intelligent or

the most beautiful, but the one that best adapts to changes”. The famous phrase, said by Leon C. Megginson, when he presented his interpretation of the central idea of the classic “The Origin of Species”²³, by Charles Darwin, never made so much sense as in this contemporary scenario, which demanded fast adaptation from everyone, especially the judiciary.

We finalize our brief reflection, invoking two famous phrases, one said by Victor Hugo and the other one by Mahatma Gandhi: “Nothing is more powerful than an idea that arrived at the right time” and “The future will depend on what we do in the present”, to establish our conviction that the Brazilian National Council of Justice (CNJ), under the presidency of Chief Justice Luiz Fux, is promoting a technological transmutation through a series of regulations (a true microsystem of digital justice) that will enshrine the digital age in the judiciary and shape the future of Brazilian Justice. It is the consecration of the Judiciary in a new era: Justice 4.0, enabling a more effective judicial provision within a reasonable time and less costly to the citizens in all

²³In 1963 a Louisiana State University business professor named Leon C. Megginson, at the convention of the Southwestern Social Science Association, presented his own idiosyncratic interpretation of the central idea outlined in Darwin’s *On the Origin of Species*. Megginson did not use quotation marks, and the phrasing was somewhat repetitive. Megginson said, “Yes, change is the basic law of nature. But the changes wrought by the passage of time affects individuals and institutions in different ways. According to Darwin’s *Origin of Species*, it is not the most intellectual of the species that survives; it is not the strongest that survives; but the species that survives is the one that is able best to adapt and adjust to the changing environment in which it finds itself”. Over time, in a multistep process, this passage has been simplified, shortened, altered, and reassigned directly to Darwin.

aspects (Paiva, Pinto, 2020).

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